COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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In The Matter Of:

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THE 2005 JOINT INTEGRATED RESOURCE)	
PLAN OF LOUISVILLE GAS AND)	Case No. 2005-00162
ELECTRIC COMPANY AND KENTUCKY)	
UTILITIES COMPANY)	

THE ATTORNEY GENERAL'S SUPPLEMENTAL REQUEST FOR INFORMATION TO LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY

Comes now the intervenor, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention, and submits this Supplemental Request for Information to Louisville Gas and Electric Company and Kentucky Utilities Company to be answered by the date specified in the Commission's Order of Procedure, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate request item will be deemed a satisfactory response.
- (2) Please identify the witness who will be prepared to answer questions concerning each request.
- (3) These requests shall be deemed continuing so as to require further and supplemental responses if the company receives or generates additional information within the scope of these requests between the time of the response and the time of any hearing conducted hereon.
- (4) If any request appears confusing, please request clarification directly from the Office of Attorney General.
- (5) To the extent that the specific document, workpaper or information as requested does not exist, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.

(6) To the extent that any request may be answered by way of a computer printout, please

identify each variable contained in the printout which would not be self evident to a person not familiar

with the printout.

(7) If the company has objections to any request on the grounds that the requested

information is proprietary in nature, or for any other reason, please notify the Office of the Attorney

General as soon as possible.

(8) For any document withheld on the basis of privilege, state the following: date; author;

addressee; indicated or blind copies; all persons to whom distributed, shown, or explained; and, the nature

and legal basis for the privilege asserted.

(9) In the event any document called for has been destroyed or transferred beyond the control

of the company, please state: the identity of the person by whom it was destroyed or transferred, and the

person authorizing the destruction or transfer; the time, place, and method of destruction or transfer; and,

the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy,

state the retention policy.

Respectfully submitted,

GREGORY D, STUMBO

ATTORNEY GENERAL OF KENTUCKY

ELIZABETH BLACKFORD

ASSISTANT ATTORNEY GENERAL

FRANKFORT KY 40601-8204

(502) 696-5453

FAX: (502) 573-8315

betsy.blackford@ag.ky.gov

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CERTIFICATE OF SERVICE AND NOTICE OF FILING

I hereby give notice that this the 26th day of July, 2005 I have filed the original and ten copies of the foregoing Supplemental Request for Information with the Kentucky Public Service Commission at 211 Sower Boulevard, Frankfort, Kentucky, 40601 and certify that this same day I have served the parties by mailing a true copy of same, postage prepaid, to those listed below.

KENDRICK R RIGGS ESQ ODGEN NEWELL & WELCH PLLC 1700 PNC PLAZA 500 WEST JEFFERSON STREET LOUISVILLE KY 40202

ELIZABETH L COCANOUGHER ESQ SENIOR REGULATORY COUNSEL LOUISVILLE GAS AND ELECTRIC COMPANY P O BOX 32010 LOUISVILLE KY 40232

KENT W BLAKE DIRECTOR STATE REGULATIONS AND RATES LOUISVILLE GAS AND ELECTRIC COMPANY P. O. BOX 32010 LOUISVILLE, KY 40232-2010

JOHN WOLFRAM
MANAGER REGULATORY AFFAIRS
KENTUCKY UTILITIES COMPANY
C/O LOUISVILLE GAS & ELECTRIC CO.
P. O. BOX 32010
LOUISVILLE, KY 40232-2010

HONORABLE MICHAEL L. KURTZ BOEHM, KURTZ & LOWRY 36 EAST SEVENTH STREET SUITE 1510 CINCINNATI, OH 45202

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The Attorney General's Supplemental Request For Information to Louisville Gas and Electric Company and Kentucky Utilities Company Case No. 2005-00162

- 1. On page 5-11 of Volume 1 of the IRP, the key energy assumption stated was that oil prices would remain below \$31 per barrel through 2009 and only rise to \$45 per barrel by 2019.
 - a. Please provide the year-by-year assumption of oil price used in the IRP between 2005 and 2019.
 - b. Please provide the year-by-year assumption of natural gas price used in the IRP between 2005 and 2019.
 - c. Please provide the year-by-year assumption of coal prices used in the IRP between 2005 and 2019.
 - d. Please provide a revised load forecast based on the assumption of \$60 per barrel oil prices (per current oil pricing) through 2009 and escalating to \$100 per barrel in 2019, as well as associated increases in natural gas and coal prices.
- 2. On page 5-46 of Volume 1 of the IRP, a list of possible plant retirements is provided. On that list is Zorn 1. Zorn 1 not only provides peaking power for LG&E, but is also under contract with the Louisville Water Company to provide emergency power for pumping water if the electric system fails.
 - a) Has the Louisville Water Company been consulted about the retirement of Zorn 1 and the contract for the provision of emergency power in the event of its retirement? If so, please detail the nature and extent of the consultation and the resolution of the means by which the contractual obligation is to be fulfilled in the event of the retirement.
 - b) If the Louisville Water Company has not been consulted in connection with the retirement of Zorn 1, why not?
 - c) Will LG&E continue to be obligated under the current contract with Louisville Water Company to provide emergency power for pumping water if the electric system fails in the event of the retirement of Zorn 1?
- 3. On page 6-3 of Volume 1 of the IRP, it states that the LG&E ownership of OVEC is to be reduced from 7% to 5.63%. Please provide a detailed explanation as to why LG&E is giving up ownership of part of this low cost source of power.
- 4. On page 6-17 of Volume 1 of the IRP, a reduction in interruptible/curtailable power is shown. Please detail LG&E and KU's efforts to increase the amount of interruptible/curtailable power, and explain why these efforts are not working.
- 5. On page 6-23 of Volume 1 of the IRP, in the last paragraph, it says, "see Graphs 7.(4)(e)-1." This graph does not seem to appear in the IRP. Please provide the page number where this graph can be found. If it was left out of the IRP, please supply a copy of this graph.

- 6. On page 6-23 of Volume 1 of the IRP, reference is made to using historic monthly load duration curves and peak load data. For each month of the last five years through July 2005, please provide the following:
 - a) The actual recorded peak load for the combined LG&E/KU system for the month and the time at which it occurred.
 - b) The weather normalized peak load for each on the monthly peaks supplied in part (a) above.
 - c) This is an ongoing request, please provide the actual recorded combined system peaks and weather normalized peaks in upcoming months, as this case proceeds, and until this case is concluded.
- 7. On page 7-18 of Volume 1 of the IRP, cooling equipment efficiencies are mentioned specifically. Please detail where and how the new federal minimum SEER of 13 requirement is included in the load forecast.
- 8. On page 8-2 of Volume 1 of the IRP, pending legislation is discussed, including renewable tax credits. In June 2005, the U.S. Senate passed a comprehensive energy bill that included a 1.8 cent per kilowatt-hour tax credit for incremental hydro at existing facilities for a period of 10 years. If approved in conference committee, this tax credit could become law by this fall.
 - a) Did the Companies include this tax credit in the analysis of the addition of units 9 and 10 to the Falls of the Ohio plant?
 - b) If the answer to part (a) is no, please provide an analysis of how the tax credits will affect the cost of the addition of units 9 and 10, and whether this would become a component of the Companies' optimum expansion plan.
 - c) Please provide the study that quantified the cost of adding units 9 and 10 to the Falls of the Ohio plant.
- 9. Page 8-75 of Volume 1 of the IRP shows the WV Hydro capacity to have a 69.7% capacity factor. Please reconcile this figure with the 50% capacity factor figure used in the screening of this option in Volume 3, Supply side Analysis. Which figure is correct?
- 10. On page 8-91 of Volume 1 of the IRP, the recommended plan calls for the purchase of power from WV Hydro in 2014 as a result of an RFP. Please provide an update concerning the purchase of this power.
- 11. Page 8-91 of Volume 1 of the IRP lays out the results of the optimum expansion plan.
 - a) Please provide all data input and output results associated with this plan.
 - b) Please provide all data input and output results for other expansion plans considered but not selected.
 - c) Please provide a detailed description of how the optimum plan is developed, and why the optimum plan did not include other generating options or the generating options being built in different time frames.

- 12. On page 8-115 of Volume 1 of the IRP, CO₂ emissions are discussed.
 - a) For each of the last 15 years, please provide the combined system CO₂ emissions, including the sum of the emissions of LG&E and KU individually in the applicable years of operation before the system was combined.
 - b) For each of the 15 years in the IRP planning horizon, please provide the combined system CO₂ emissions, based on the optimal expansion plan in the IRP.
- 13. On page 18 of Volume 3, Reserve Margin Analysis of the IRP, it is stated that the IRP uses a 14% reserve margin for planning purposes. Nowhere in the IRP is an explanation given as to how and why a 14% target was chosen. Please provide an explanation as to how this conclusion was reached, as well as all calculations, assumptions and workpapers used to develop the 14% target for planning purposes.
- 14. In Volume 3, Supply Side Analysis, Exhibits 6 and 8, some renewable resource technologies seem to have capacity factor limits placed on them based on how they operate and their limitations while coal technologies have no capacity factor limitations.
 - a) Do you agree that it is impossible for any power plant to achieve a 100% capacity factor over a long period of years?
 - b) Please explain why coal fired plants are modeled as 100% capacity factor, when their maximum capacity factor is closer to 90% due to both planned and forced outages.
- 15. In Volume 3, Supply Side Analysis, page 21 states that WV Hydro is available in 2008, yet the IRP calls for this option to come on-line in 2014.
 - a) Does the Letter of Intent signed with WV Hydro call for this plant to be on-line in 2008 or 2014?
 - b) Is it not correct that WV Hydro will need to bring its units on-line by the end of 2008 to receive the tax credits contained in the U.S. Senate energy bill?
 - c) Since the Letter of Intent only covers a few months, isn't it true that WV Hydro may find a different buyer if it must wait an additional 6 years to sell power to LG&E in 2014?
- 16. In Volume 3, Supply Side Analysis, page 24 states that a price of \$172 per SO₂ allowance was used in the supply side analysis. Please compare this to Volume 3, SO₂ Compliance, where here the Companies used a price of \$400, which also appears to be very low.
 - a) Would you agree that the price used by the Companies in the Supply Side Analysis is extremely low?
 - b) Would you agree that a low SO2 allowance price creates a bias toward coal fired options?
- 17. In Volume 3, Supply Side Analysis, on page 37, the results of the sensitivity analysis for \$20 and \$40 carbon taxes is discussed in a narrative form, but the actual results of these sensitivity analyses are not provided.
 - a) Please provide Exhibits 8 and 9, but with a \$20 carbon tax instead of \$10.
 - b) Please provide Exhibits 8 and 9, but with a \$40 carbon tax instead of \$10.

- 18. In Volume 3, SO₂ Compliance, page 22 of 91, states that the Companies will still need to purchase 690,000 SO₂ allowances.
 - a) Is the assumed price of these allowances based on the green line in the graph on page 15? If not please provide the assumed price.
 - b) Even at the prices assumed by the Companies, please explain why it wouldn't be cheaper to simply remove more SO₂ by, for example, upgrading the Cane Run scrubbers, as opposed to buying so many expensive allowances?
- 19. With respect to the evaluation of DSM options:
 - a) Please provide the avoided cost of capacity used in this analysis.
 - b) If the avoided cost used to evaluate DSM options was anything other than the cost of adding the TC2 plant, please provide an explanation of why a different avoided cost was used.
- 20. In Volume 3, Optimum Expansion Plan Analysis, a high fuel cost sensitivity analysis was run. With respect to that analysis please provide the following:
 - a) Assumed price of coal.
 - b) Assumed price of natural gas.
 - c) Assumed price of oil.
- 21. In Volume 3, PSC Recommendations, the Companies' answer to the seventh question, with respect to providing customers a Green Power alternative was non-responsive. Please describe the Companies' efforts to provide customers with a green power alternative. If the Companies have done nothing to develop this alternative, please provide an explanation of why the Companies have failed to act.
- 22. In Volume 3, PSC Recommendations, the Companies' answer to the eighth question, the Companies discuss its policy with respect to avoided cost calculations.
 - a) Please provide the Companies' current avoided costs, along with all supporting calculations, assumptions and workpapers.
 - b) Is a policy of not offering avoided capacity costs consistent with PURPA? Please explain.
 - c) Is the expressed current policy consistent with the Companies' policy on avoided costs in the past? Please explain.